REMARKS

Reconsideration of the application and claims in light of the following remarks is respectfully requested.

I. Status of the Claims

Claim 29 has been amended to place it in better form. No new matter has been added. For example, at paragraphs [0019] and [0020], Applicant describes that the vehicle monitoring apparatus 5 receives input data from the stereoscopic camera 4, the vehicle speed sensor 6, the steering angle sensor 7, the yaw rate sensor 8, and the turn signal switch. See Fig. 1 and paragraphs [0019] and [0020] of the publication of the present application, Publication No. 2004/006756. Applicant proceeds to explain in detail from paragraphs [0025]-[0097] each of the calculations and logic functions undertaken by the vehicle surroundings monitoring program of the vehicle monitoring apparatus 5 to perform each of the steps of claim 29 based on specific values of the input data and predetermined ranges of values. See Figs. 2-4 and paragraphs [0025] and [0097] of the publication of the present application, Publication No. 2004/006756.

Claims 29-33 are currently pending in this application.

II. Examiner Interview

Applicant thanks Examiner Mancho for all the courtesies extended to Applicant's representative, James C. Signor, during the telephonic interview of July 17, 2009. Claim 29 was discussed, in particular, the consecutive "means for" language, which Applicant addresses by amendment in this response, and the "sixth means for adjusting the parameter in a case where any forward traveling object other than the preceding vehicle has been judged." In addition, Saneyoshi was discussed, in particular, the histogram shown in Fig. 13 thereof. Applicant argued that the histogram consisted of numerous parameters, each of which was calculated only once per measurement based on the number of object data points appearing at a particular point in space and

corresponding to a single object only. It was agreed that, to anticipate claim 29, Saneyoshi must disclose a parameter (i.e., a variable that is set to a specific numerical)[1] that is set according to the position of a preceding vehicle and whose value is adjusted at least based on the presence of an object other than the preceding vehicle.

III. Rejections under 35 U.S.C. § 102

Claims 29-33 were rejected under 32 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,122,597 to Saneyoshi et al. ("Saneyoshi"). Applicant respectfully traverses the rejection.

Claim 29 recites setting a parameter in response to the position of a preceding vehicle and "adjusting the parameter in a case where any forward traveling object other than the preceding vehicle has been judged." In this way, the present invention provides for the possibility of collision with respect to multiple objects based on a single numerical indicator. Applicants respectfully submit that Saneyoshi does not describe any parameter that is set based on the position of the preceding vehicle and later adjusted based on the presence of another object.

The Examiner contends that the histogram shown in Fig. 13 of Saneyoshi showing frequency (which Applicant notes is the number of object data points appearing at a specific deviation amount and at a specific width-wise lattice; it is not the inverse of time) is the parameter that is adjusted. Detailed Action, Page 5. However, as set forth below, the histogram is not a parameter, but rather a representation of multiple parameters, each of which is set only once independently for an individual object and is never adjusted from its initially set numerical value.

Saneyoshi describes dividing the distance image (Fig. 7) into groups having approximately the same deviation amount (forward distance) and extracting object data for picture elements located above the road surface and having sufficient group size by comparing adjacent blocks of the distance image (Fig. 8). Saneyoshi, Figs. 7 and 8 and col. 3, lines 29-39. The distance image is

[1] "parameter ": *Computers.* a variable that must be given a specific value during the execution of a program or of a procedure within a program. Dictionary.com Unabridged (v 1.1). Random House, Inc. 03 Aug. 2009. <Dictionary.com http://dictionary.reference.com/browse/parameter>

then divided into a plurality of lattices (Fig. 11), each lattice corresponding to a width of a block (width-wise position, i, Fig. 8), and a histogram is prepared for each lattice (Fig. 13). Saneyoshi, Figs. 8, 11 and 13 and col. 8, lines 11-22. Because false data is eliminated where multiple blocks can not be grouped together, each block (i.e., width of each lattice) is smaller than the size of an object (i.e., 4 to 10 blocks are required to recognize a single object); thus, each lattice for which a histogram is prepared can contain only one object at a certain deviation amount (i.e., one object only at Z1 and one object only at Z2). Saneyoshi, col. 7, lines 61-65. Therefore, while there may be multiple objects appearing at the same deviation amount in front of the vehicle (e.g., the bike and the pedestrian in Fig. 12 or 14), the frequency of their object data within that deviation amount is calculated separately each time a measurement is taken because they must appear in different width-wise lattices; this is why they do not appear on the same histogram. Saneyoshi, Figs. 12-14 and col. 6, lines 58-65. In the histogram of Fig. 13, a portion of the pedestrian and the preceding vehicle appear in the same width-wise lattice (see Fig. 12), and their height-wise object data is calculated at their deviation amount once only to determine if it exceeds the threshold value. Saneyoshi, Figs 12 and 13 and col. 8, lines 31-43. Each deviation division of each lattice is therefore a single, separate measurement. Further, even if the pedestrian was sitting on the trunk of the car at the time of measurement, Saneyoshi only describes measuring the number of object data points within a particular lattice and at a particular deviation amount once only; thus, Z2 would merely be initially set to a higher value. Accordingly, no value is ever set in response to the position of an object and later adjusted to a different value based on the presence of another object.

Additionally, the Examiner contends that the "two spikes" at Z2 in Fig. 13 of represents some form of adjustment of a parameter. Detailed Action, Page 5. However, Applicant respectfully point out that it is clear from Saneyoshi and the foregoing description that the second spike immediately after Z2 is merely the separate measurement at the subsequent deviation amount and is higher than Z2 because more object data appear at that deviation amount as the car gets taller at that point past the trunk. Further, the Examiner relies on col. 5, lines 50-56 of Saneyoshi as disclosing the parameter which is adjusted. Detailed Action, Page 3. However, Saneyoshi is merely

describing that the location of each object is extracted separately using the single measurement described above to determine the possibility of a collision therewith. Saneyoshi, col. 5, lines 50-56.

Because Saneyoshi at least does not describe a parameter that is set based the position of a preceding and adjusted based on the presence of another object, it can not anticipate claim 29, or any of its dependent claims 30-33. Reconsideration and withdrawal of the rejections of claims 29-33 under 32 U.S.C. § 102(b) is therefore respectfully requested.

CONCLUSION

In view of the foregoing arguments, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

By _____

James C. Signor
Registration No.: 59,233
DARBY & DARBY P.C.
P.O. Box 770
Church Street Station
New York, New York 10008-0770
(212) 527-7700
(212) 527-7701 (Fax)
Attorneys/Agents For Applicant